We claim:

1 An instrument for compacting bone material, said instrument comprising:

a first component defining a longitudinal axis thereof; and

a second component moveably associated with said first component, said second component moveable at least partially in a radial direction outwardly from the longitudinal axis of said first component.

2. The instrument of claim 1, wherein said first component comprises:

a body; and

a stem extending from said body, said second component slidably mounted to said body

3. The instrument of claim 1, wherein at least one of said first component and said second component is tapered along the longitudinal axis.

4. The instrument of claim 1:

wherein said first component defines a restraining portion thereof; and

wherein said second component defines a cooperating portion for cooperating with the restraining portion of said first component to provide restrained motion of said second component with respect to said first component.

5. The instrument of claim 1, further comprising a third component moveably associated with said first component, said third component moveable at least partially in a radial direction outwardly from the longitudinal axis of said first component.

6. The instrument of claim 1;

wherein one of said first component and said second component defines a void; and

wherein said other of said first component and said second component comprises a protrusion for cooperation with the void.

7. The instrument of claim 6, wherein the protrusion and the void interlock with each other.

8. The instrument of claim 1, wherein said second component defines a first surface for cooperation with the first component and a second surface opposed to the first surface for contact with the bone material.

9. The instrument of claim 8, wherein the second surface of said second component is adapted to urge the particles radially from the longitudinal axis as the first component is rotated about the longitudinal axis in a first direction.

10. The instrument of claim 1, wherein said first component and said second component are adapted to provide for motion of said second component away from the longitudinal axis of said first component as the first component is advanced axially in the direction of the longitudinal axis of said first component with respect to the second component.

11. An instrument for compacting bone material in a medullary canal of a long bone , said instrument comprising:

a first component defining a longitudinal axis thereof said first component having an outer periphery having portion thereof which is tapered along the longitudinal axis, the portion of the outer periphery of said first component defining a restraining portion thereof; and

a second component moveably associated with said first component, said second component defining a cooperating portion for cooperating with the restraining portion of said first component to provide restrained motion of said second component with respect to said first component.

12. The instrument of claim 11, wherein said first component comprises:

a body; and

a stem extending from said body, said second component slidably mounted to said body

13. The instrument of claim 11, further comprising a third component moveably associated with said first component, said third component moveable at least partially in a radial direction outwardly from the longitudinal axis of said first component.

14. The instrument of claim 11;

wherein one of said first component and said second component defines a void; and

wherein said other of said first component and said second component comprises a protrusion for cooperation with the void.

15. The instrument of claim 14, wherein the protrusion and the void interlock with each other.

16. The instrument of claim 11, wherein said second component defines a first surface for cooperation with the first component and a second surface opposed to the first surface for contact with the bone material.

17. The instrument of claim 16, wherein the second surface of said second component is adapted to urge the particles radially from the longitudinal axis as the first component is rotated about the longitudinal axis in a first direction.

18. The instrument of claim 11, wherein said first component and said second component are adapted to provide for motion of said second component away from the longitudinal axis of said first component as the first component is advanced axially in the direction of the longitudinal axis of said first component with respect to the second component.

19. A method for preparing a cavity in a long bone comprising:

cutting an incision in the patient;

preparing a cavity in a long bone;

providing an instrument for compacting bone material having a first component defining a longitudinal axis thereof and a second component moveable at least partially in a radial direction outwardly from the longitudinal axis of said first component;

placing the instrument in the cavity; and

compacting bone material in the cavity.